In what conditions is there diastolic mitral leaflet doming with the leaflet concave toward the LA?

1. Rheumatic MS
2. Rheumatic and calcific MS
3. Rheumatic and congenital MS
4. Rheumatic MS and AI with flow hitting the mitral valve
In what conditions is there diastolic mitral leaflet doming with the leaflet concave toward the LA?

1. Rheumatic MS
2. Rheumatic and calcific MS
3. Rheumatic and congenital MS
4. Rheumatic MS and AI with flow hitting the mitral valve

In mitral stenosis, which is the best view to guide placement of the beam to measure the narrowest orifice area?

A. The parasternal long-axis view
B. The parasternal short-axis view
C. The apical 2-chamber view
D. The apical 4-chamber view
In mitral stenosis, which is the best view to guide placement of the beam to measure the narrowest orifice area?

A. The parasternal long-axis view  
B. The parasternal short-axis view  
C. The apical 2-chamber view  
D. The apical 4-chamber view
A patient has mitral stenosis with an E-wave deceleration time of 1000 milliseconds. What is the mitral valve area?

1. 0.22 cm$^2$
2. 0.75 cm$^2$
3. Depends on cardiac output
4. 1.5 cm$^2$

\[ \text{PHT} = 29\% \text{ of total deceleration time (DT)} \]

\[ \text{MVA} = \frac{220}{\text{Pressure half time}} \]

\[ \text{MVA} = \frac{750}{\text{Deceleration time}} \]
A patient has mitral stenosis with an E-wave deceleration time of 1000 milliseconds. What is the mitral valve area?

1. 0.22 cm²
2. 0.75 cm²
3. Depends on cardiac output
4. 1.5 cm²

How does the mitral pressure half time vary with these parameters?

1. Directly with mitral valve area, directly with ventricular stiffness
2. Directly with mitral valve area, inversely with ventricular stiffness
3. *Inversely* with mitral valve area, directly with ventricular stiffness
4. *Inversely* with mitral valve area, inversely with ventricular stiffness
How does the mitral pressure half time vary with these parameters?

1. Directly with mitral valve area, directly with ventricular stiffness
2. Directly with mitral valve area, inversely with ventricular stiffness
3. Inversely with mitral valve area, directly with ventricular stiffness
4. Inversely with mitral valve area, inversely with ventricular stiffness
What condition can explain the difference in MV area by planimetry and half time in the following patient?

A. Mild aortic insufficiency
B. Post-balloon atrial shunt PFO
C. Moderate mitral regurgitation
D. Left atrial enlargement
MVA = 0.66 cm²
MVA = 750 / Deceleration time
= 750 / 660 = 1.14 cm²
What condition can explain the difference in MV area by planimetry and half time in this patient?

A. Mild aortic insufficiency
B. Post-balloon atrial shunt PFO
C. Moderate mitral regurgitation
D. Left atrial enlargement
What condition can explain the difference in MV area by planimetry and half time in this patient?

A. Mild aortic insufficiency

► B. Post-balloon atrial shunt PFO
C. Moderate mitral regurgitation
D. Left atrial enlargement

What is the mitral valve area in this patient?

A. 0.82 cm²
B. 1.34 cm²
C. 1.0 cm²
D. Need more data
r = 1.06 cm
\[ \alpha = 110^\circ \]

Peak CW velocity = 2 m/s

Largest PISA:

Aliasing v = 38 cm/sec
MVA = Peak Flow/Peak MS velocity

Leonardo Rodriguez

Peak flow rate = \(2\pi r^2 v \left(\frac{\alpha}{180}\right)\)

- \(r = 1.06\) cm
- \(v = 38\) cm/sec
- \(\alpha = 110^\circ\)

Peak flow rate = 164 cm\(^3\)/sec

MVA = Peak flow rate / Peak velocity

= \(\frac{164 \text{ cm}^3/\text{sec}}{200 \text{ cm/sec}}\)

= 0.82 cm\(^2\)
What is the mitral valve area in this patient?

- A. 0.82 cm²
- B. 1.34 cm²
- C. 1.0 cm²
- D. Need more data
In evaluating mitral stenosis, the pressure half time is calculated as:

a. The time taken to drop to 0.7 x the peak pressure gradient
b. The time taken to drop to half the peak pressure gradient
c. The time taken to drop to half the peak velocity
d. The pressure gradient at half the diastolic filling period
In evaluating mitral stenosis, the pressure half time is calculated as:

a. The time taken to drop to 0.7 x the peak pressure gradient

b. The time taken to drop to half the peak pressure gradient

c. The time taken to drop to half the peak velocity

d. The pressure gradient at half the diastolic filling period